



Corrigo E

Controllers for air handling, heating and boiler control
for small to mid-sized applications



THE CHALLENGER IN BUILDING AUTOMATION



Smart, powerful and user-friendly

Corrigo E is a range of smart and powerful controllers which are easy to install and adjust according to your needs. They can be used stand-alone or as part of a network.

Easy configuration

The controller comes with pre-programmed applications, and its settings can be configured using the buttons and display or on a PC via the E tool[®] software, which can be downloaded free of charge from our web site.

Powerful

The digital outputs are based on Mosfet transistors with great capacity (2A). In addition, the processor in Corrigo E is now more powerful than ever.

Fast and efficient communication

The Corrigo E controller's quick and efficient communication is very useful in large, integrated bus systems, e.g. Modbus systems, with SCADA.

24 V AC or 24 V DC

Corrigo E has 24 V AC or 24 V DC power supply. With an additional DIN rail power supply and an UPS connected to Corrigo E, alarms and important data can be transmitted even if the main power supply fails.

Available in different versions

- *With or without built-in display, an external display unit can also be connected*
- *8, 15 or 28 I/O, with expansion possibilities, offering the freedom to control many different functions*



Models with and without display



Open for communication

Wide communication possibilities

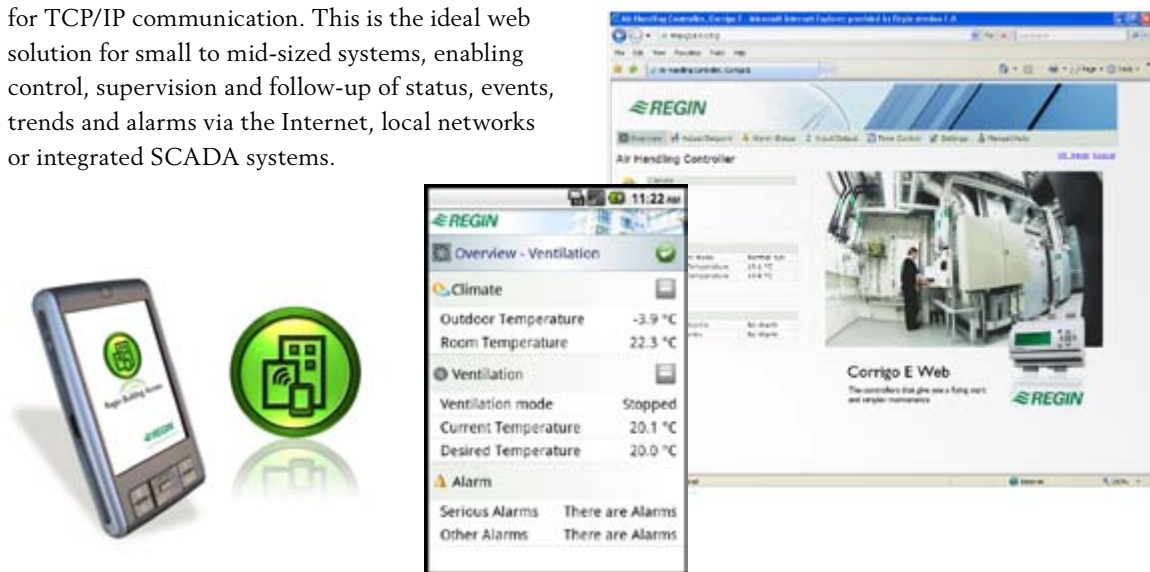
Corrigo E is available featuring communication via RS485 (Modbus/EXOLine), TCP/IP or LON. Two models are available, featuring one or two communication ports.

Corrigo Web with TCP/IP

Corrigo E is also available in a web version, Corrigo Web, with integrated web server and a port for TCP/IP communication. This is the ideal web solution for small to mid-sized systems, enabling control, supervision and follow-up of status, events, trends and alarms via the Internet, local networks or integrated SCADA systems.

Mobile building control

Regin Building Access is an application for controlling Corrigo Web directly via your Android-based phone. Control and monitor your buildings whenever you want, regardless of location. The application can also be used on tablets. It is free of charge and can either be downloaded from Android Market or be ordered from Regin.



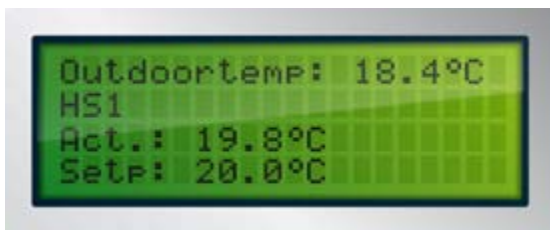
Corrigo Web in your web browser or mobile phone.



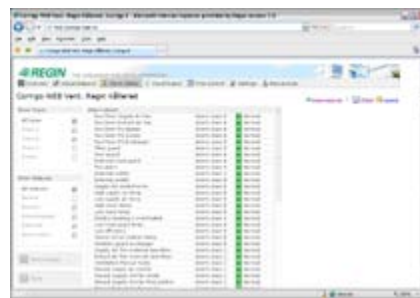
User-friendly interface

Whether you communicate directly with the controller or via the Internet, the information is just as clear and easy to understand.

You can change parameters, handle alarms and read values in the step-by-step menus of the display, or in the graphical user interface of the E tool[®] configuration software. Different menus are shown depending on the operator's access level.



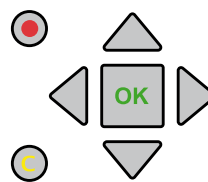
The display has 4 rows, each with 20 characters and is backlit, making it easier to read regardless of light conditions in the room.



A user-friendly interface using a web browser on your PC.



The display supports several different languages.



The Corrigo E menus are organized in a horizontal tree structure. The navigation, setting and reading of parameters is handled through the buttons on the controller.



READY STEADY GO

Easy to install and commission

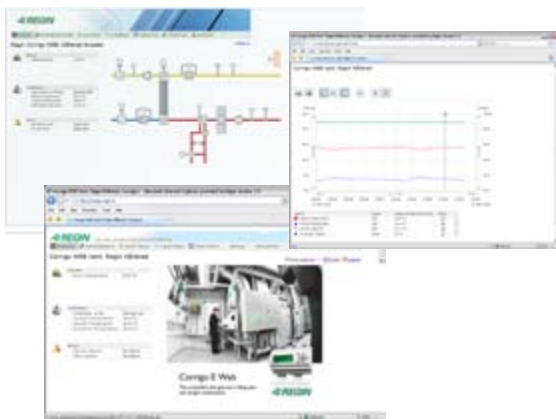
Corrigo E is developed according to our **Ready-Steady-Go** concept for quick and easy installation and commissioning. A front mounting kit is available as an accessory, which makes the controller easier to front-mount in a cabinet.

E tool® offers endless possibilities

- The market's most powerful configuration tool
- Free download from www.regin.se
- A variety of programmable functions
- Settings can be copied from one controller to another
- You can write your own alarm descriptions
- Tool for operation, service and troubleshooting

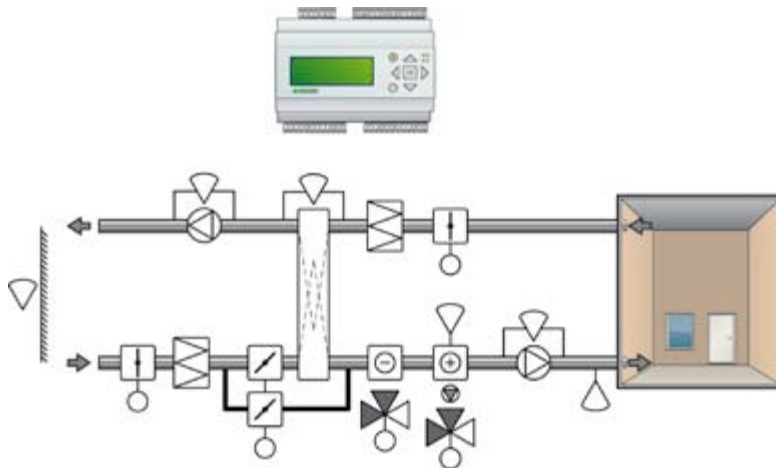


You can also configure Corrigo E without a PC directly via the display and buttons, a practical way of handling commissioning even though E tool® offers a better overview.



Applications

Corrigo E comes with three pre-programmed, ready-to-use applications for air handling, heating/domestic hot water and boiler control.



Air handling unit

Ventilation control

Control functions

1. Supply air control
2. Outdoor temperature compensated supply air control
3. Cascaded room temperature control
4. Cascade connected extract air temperature control
5. Outdoor temperature-dependent switching between room control and supply air control
6. Outdoor temperature-dependent switching between extract air control and supply air control

Additional temperature control functions

- • Support control heating/cooling
- Free cooling/heating
- Cooling recovery
- Enthalpy control
- External setpoint

Additional control functions

- Humidity control
- An extra control circuit for after-treatment
- Recirculation control
- Possible to expand with more inputs and outputs
- Two port models can control two VACON/Lenze/Omron/Emerson frequency converters via Modbus communication.
- Pretreatment (type "Puit Canadien")

Temperature control of:

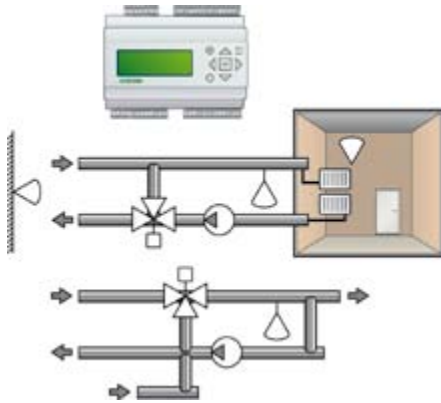
- Water heating, electric heating
- Heat exchangers, mixing dampers
- Water cooling, DX cooling

Air control of:

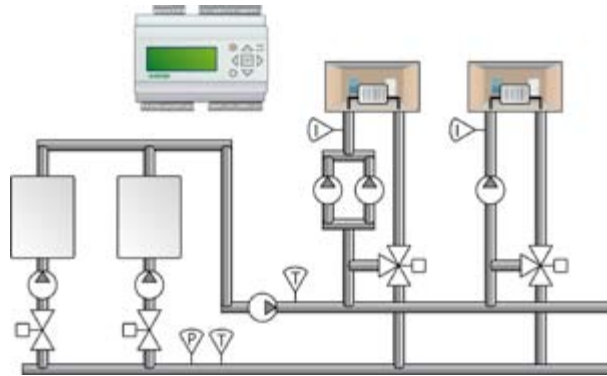
- 1-speed fan
- 2-speed fan

Frequency converters via:

- Pressure control
- Air flow control
- Manual rotational speed control in percentages
- One external 0...10 V input signal
- Supply air pressure control and slave controlled extract air
- Pressure controlled supply air and flow controlled extract air for balanced ventilation



Heating and domestic water control



Boiler control

Heating, domestic hot water and boiler control

Heating circuits (up to 3 circuits)

- One setpoint curve for each circuit
- Pump control with pump stop saves energy
- Frost protection
- Wind compensation
- Consideration to building inertia
- Night set-back
- Power limitation

Domestic hot water (up to 2 circuits)

- Pump control
- Daily overheating, preventing growth of Legionella
- Night set-back

Boiler control

- 1-4 boilers, of which one boiler can be configured for modulating control (0...10 V)
- Modulating PI-control or thermostat control
- Setpoint settings: fixed, dependent on outdoor temperature or the heating circuits heating requirements
- Automatic switching between boilers if an alarm condition occurs
- Pump control with automatic pump exercise
- Limitation of return temperature to the boilers

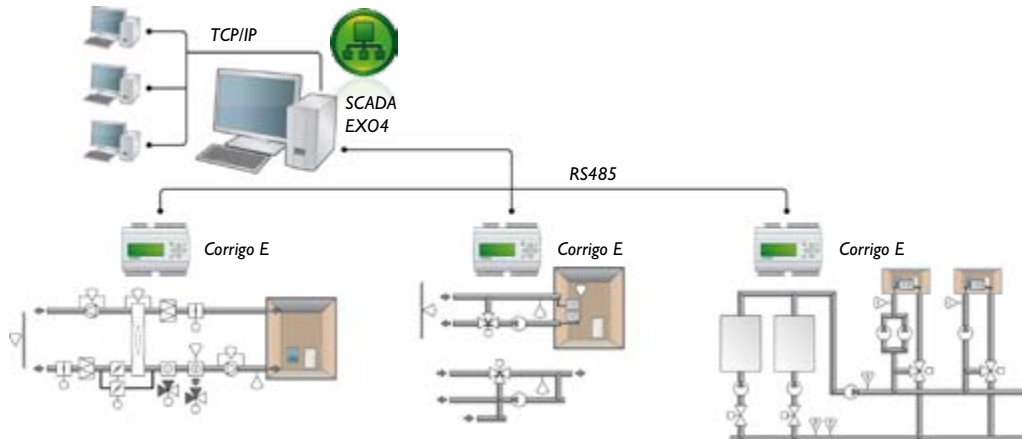
Other functions

- Control of the storage tank pump
- Pressure control of a variable speed pump in order to maintain constant pressure in the system
- Cold and hot water monitoring via pulse and energy leakage alarms
- Digital timer channels for door locks, lighting etc.
- Possible to expand with more inputs and outputs
- Two port models can communicate with M-Bus meters
- New control circuit for district cooling with dew point control
- Control of bypass valve for district cooling
- Optimizer function

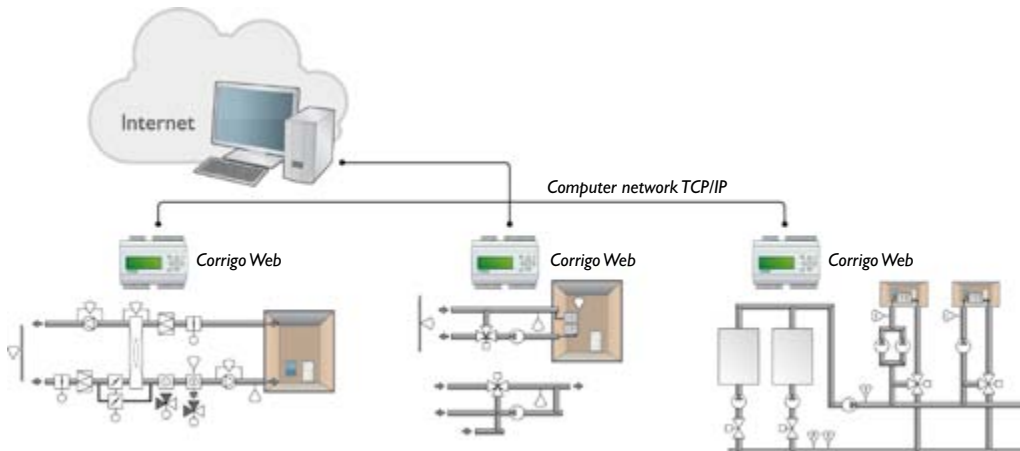
Integrated in systems

Corrigo E in an EXO4 system

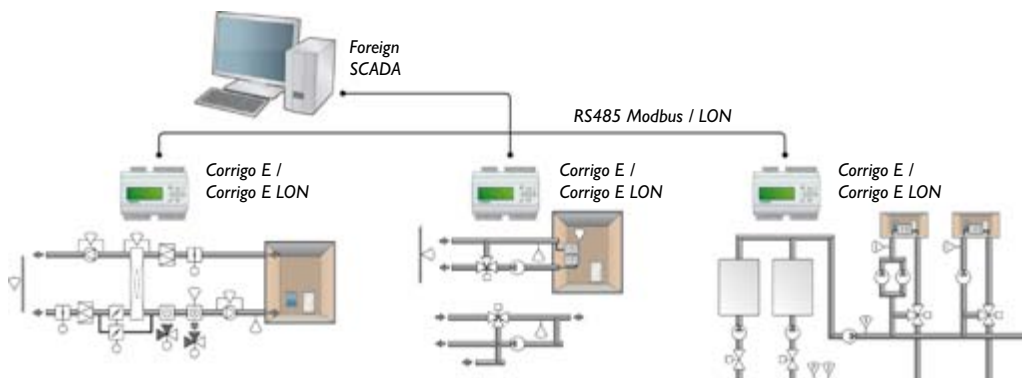
The basic Corrigo E models are equipped with an RS485 port for bus communication via EXOLine or Modbus. This enables the controller to be directly integrated with EXO4, Regin's powerful SCADA system.



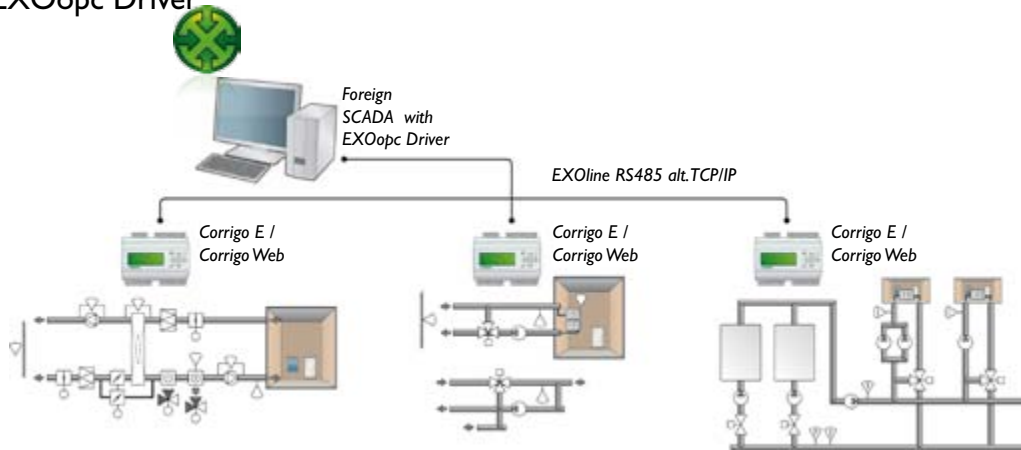
Corrigo Web in a network



Directly integrated with a foreign SCADA system via Modbus/LON

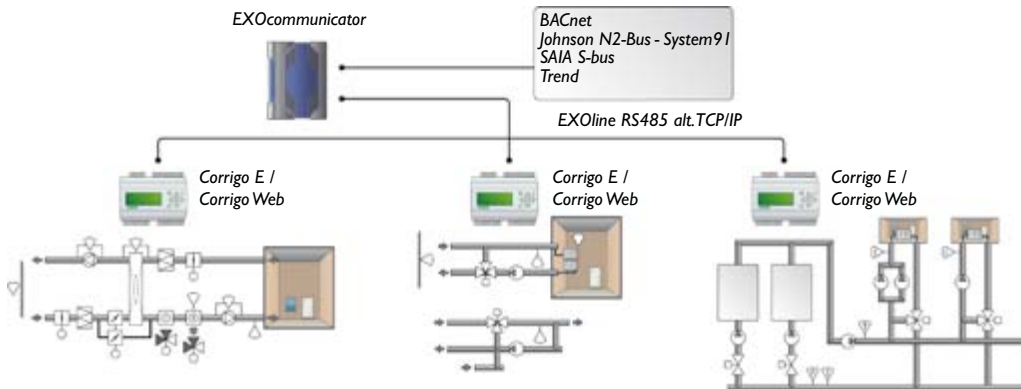


Integrated with a foreign SCADA system via Regin's EXOopc Driver



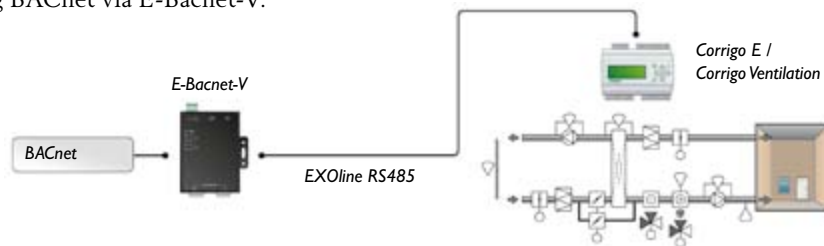
Connected to foreign protocols

The controller can handle BACnet, Johnson, Trend and other foreign protocols via EXOcommunicator.



BACnet system

When the ventilation application is activated, Corrigo E can be integrated into systems using BACnet via E-Bacnet-V.



EXOopc Driver



EXOopc Driver connects Corrigo E to any software supporting the OPC standard. This means that most of the SCADA software available on the market today can be used with our controllers.

EXOcommunicator



Gateway linking EXOline to bus systems with BACnet protocols (BACnet/MSTP, BACnet/IP, BACnet/Ethernet) and other protocols such as N2-System 91 from Johnson Controls, S-bus from SAIA and Trend.

E-Bacnet-V



E-Bacnet-V is an EXOline to BACnet converter for connection of Corrigo E with activated ventilation application to a SCADA system using BACnet.



Model overview

Models with or without display

	E8D-S	E8-S	E15D-S	E152D-S	E15-S	E152-S	E28D-S	E282D-S	E28-S	E282-S
Inputs	5	5	8	8	8	8	16	16	16	16
Outputs	3	3	7	7	7	7	12	12	12	12
Display	Yes	-	Yes	Yes	-	-	Yes	Yes	-	-
Dual ports	-	-	-	Yes	-	Yes	-	Yes	-	Yes

Models with LON communication

	E8D-S-LON	E15D-S-LON	E15-S-LON	E28D-S-LON	E28-S-LON
Inputs	5	8	8	16	16
Outputs	3	7	7	12	12
Display	Yes	Yes	-	Yes	-

Models with TCP/IP communication

	E8D-S-WEB	E8-S-WEB	E15D-S-WEB	E152D-S-WEB	E15-S-WEB	E152-S-WEB	E28D-S-WEB	E282D-S-WEB	E28-S-WEB	E282-S-WEB
Inputs	5	5	8	8	8	8	16	16	16	16
Outputs	3	3	7	7	7	7	12	12	12	12
Display	Yes	-	Yes	Yes	-	-	Yes	Yes	-	-
Dual ports	-	-	-	Yes	-	Yes	-	Yes	-	Yes

Accessories

External display units



For use with Corrigo E controllers with no display E-DSP may also be used together with a display repeater for ranges up to 1000m (RS485).

Panel PC



With a DP89 or DP156 connected to Corrigo Web, it is possible to manage your installation directly on site.

Cabinets



CAB-STD... are ready-made cabinets adapted especially for Corrigo E controllers with 15 or 28 I/O.



Technical specifications

Technical data	
Supply voltage	24 V AC $\pm 15\%$, 50...60 Hz or 20...36 V DC
Power consumption	5 VA, 3 W (DC) WEB models: 9 VA, 5 W (DC)
Ambient temperature	0...50°C
Storage temperature	-40...+50°C
Ambient humidity	Max. 90 % RH
Protection class	IP20 (E-DSP IP44)
Memory back-up	Built-in long-life battery with long time back-up of all settings
Display	Backlit, LCD, 4 lines with 20 characters
Dimensions (WxHxD)	148 x 123 x 58 mm, 8.5 modules
Mounting	DIN-rail
Communication	RS485, EXOline (free protocol) and Modbus as standard. LON and TCP/IP as options.
Inputs	
Analogue inputs (AI)	For a PT1000 sensor or 0...10 V DC
Digital inputs (DI)	For potential-free contacts
Outputs	
Analogue outputs (AO)	0...10 V DC, 1 mA, short-circuit proof
Digital outputs (DO)	Mosfet 2 A each, max. 8 A total, 24 V AC or DC



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